CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 99-062

ADOPTION OF SITE CLEANUP REQUIREMENTS FOR:

H.K. PORTER COMPANY, INC. AND DELTA STAR, INC.
270 INDUSTRIAL ROAD
SAN CARLOS
SAN MATEO COUNTY

TIEGEL MANUFACTURING COMPANY
495 BRAGATO ROAD
SAN CARLOS
SAN MATEO COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region (hereinafter Board), finds that:

1. **Site Location**: The two adjacent sites addressed by this order are located at 270 Industrial Road and 495 Bragato Road in San Carlos, San Mateo County. Prior to a January 1998 change in city boundaries, these two sites were in the city of Belmont. The address for the 270 Industrial Road was 1777 Industrial Way in Belmont. They are situated about 3 miles west of San Francisco Bay at the northern edge of the City of San Carlos, San Mateo County. The site vicinity is an industrial/commercial area.

2. **Site History**

   270 Industrial Road: Price Metal Corporation occupied this property between 1956 to 1959. Price Metal reportedly operated a steel fabrication business at the site until about 1959, when the property was leased to H.K. Porter Company, Inc. (Porter).

   Porter leased the property from 1959 to 1968. Porter purchased the property in 1968 and retained ownership until 1988. Porter manufactured transformers throughout its occupancy of the site. In 1988, Delta Star acquired the facility and property from Porter. Delta Star has manufactured power and mobile transformers since acquiring the subject property from Porter in 1988. Delta Star's operations consist of manufacturing the coil, tank and core of the transformer, assembling the components, filling the transformers with petroleum hydrocarbon-based dielectric fluid and painting and shipping the finished product.

   Between 1962 and 1974, Porter manufactured about 575 transformers containing askarel dielectric fluid. Askarel consists of polychlorinated biphenyls ("PCBs") that are often

mixed with trichlorobenzenes (TCBs) to achieve desired viscosity. Askarel used by Porter contained PCB Aroclors 1260 and 1254, with 40% and 30% trichlorobenzene, respectively. Based on the number and types of askarel-containing transformers built, the total quantity of askarel dielectric fluid used at the site by Porter is estimated to have been 82,000 gallons. Manufacturing of askarel-containing transformers is reported to have stopped at this property in 1974.

Delta Star currently manufactures non-PCB containing transformers. Chemicals used by Delta Star include paints and primers, compressed gases, thinners, solvents (including acetone, ethylbenzene, toluene, trimethylbenzenes and xylenes), lubricating oils, and petroleum hydrocarbon-based products (including dielectric fluid, mineral oil and hydraulic oil).

As part of the purchase agreement between Porter and Delta Star, environmental site assessment was conducted at the site in 1988. Several PCB hot-spot areas were discovered inside and outside the building due to historical improper hazardous chemical handling and spillage at the site. Department of Toxic Substances Control (DTSC) was the lead agency and required Porter and Delta Star to conduct further investigation and source removal. High PCB concentrations were detected in the concrete floor inside the manufacturing building, in the soil outside the building, and in the sediments found in the storm drains between the Delta Star plant and the Tiegel property. As a result, about 800 cubic yards contaminated soil from 4 areas and about 7,000 square feet of concrete hot-spot were excavated from the site in 1989 and 1990. DTSC closed the case in 1991, before any pollutants were detected in soil and groundwater near the shared property boundary.

495 Bragato Road: Buckley Door Company owned and operated at this property. Buckley Door assembled and glued hollow core masonite doors from 1948 to 1955. Buckley Door sold the property to Tiegel Manufacturing Company (Tiegel) in December 1954. Tiegel has owned and operated a specialty machine shop and fabricating facility and research facility to support such operation at this property since then. Tiegel fabricates and machines various parts, including battery making equipment, equipment for ski lifts, ovens, stone saws, satellite equipment, and other specialized equipment. Tiegel uses welding, melting, cutting, shearing, plastic gluing and bending equipment.

There were also other tenants who leased the southern portion or other portions of the property on different occasions. The operation of the former tenants include door manufacturing, fiberglass pool manufacturing, construction yard, storage, repair and maintenance of construction equipment, cabinet maker, residential, auto repair, builders debris box service, house painter, personal property storage and paving construction. No evidence or record of release of the chemicals of concern was found due to the past operations of the former tenants, except the tank release described in the following paragraph.

Two underground petroleum storage tanks were removed from the site in December 1988. A tank tightness test results showed that the tanks were tight. Laboratory results revealed that toluene at 10 µg/kg was the only chemical detected in soil samples collected from the tank pits. TPH, benzene, ethylbenzene, and xylenes were not detected in the soil samples. There were also two above-ground diesel tanks reported by Tiegel to contain diesel fuel at the Tiegel property. One of the diesel tank belonged to Empire Builders, a former tenant on the property. This tank, which was tipped over and released diesel, was subsequently removed from the site, and affected soil was excavated. The other above-ground tank, which was reported to have stored diesel, is currently reported to be empty and had no known spills, leaks, or releases.

Origin of Contaminants: Based on the analytical data compiled to date and the current available information on chemical usage and site history from both sites, Delta Star site is the most likely source for PCBs (Aroclors 1260 and 1254), TCBs, and motor oil and probably a contributing source for ethylbenzene, toluene, trimethylbenzenes and xylenes releases at the 270 Industrial Road site and along the property boundary.

Tiegel is the most likely source for TPH-g, TPH-d and a contributing source for benzene, toluene, ethylbenzene and xylenes (BTEX) at the 495 Bragato Road site and along the property boundary.

3. **Named Dischargers**: Porter is named as a discharger because of substantial evidence that it discharged pollutants to soil and groundwater at the 270 Industrial Road site and along the northwestern property boundary, including its historical use of PCBs (Aroclors 1260 and 1254) and TCBs in its past transformers manufacturing operations, the presence of these same pollutants in soil in the immediate vicinity of former transformers storage area, and the presence of these same pollutants and possible break-down products in groundwater at and near the former transformers storage area. Porter owned the 270 Industrial Road property during the time of the activity that resulted in the discharge, had knowledge of the discharge of the discharge or the activities that caused the discharge, and had the legal ability to prevent the discharge.

Delta Star is named as a discharger because it has been owner and operator of the 270 Industrial Road property since 1988, during or after the time of the activity that resulted in the discharge. Delta Star has knowledge of the discharge and has the legal ability to prevent the discharge.

Tiegel is named as a discharger because of substantial evidence that it discharged pollutants to soil and groundwater at the site (including TPH-g, TPH-d and BTEX) and because it owned the 495 Bragato Road property during or after the time of the activity that resulted in the discharge, had knowledge of the discharge or the activities that caused the discharge, and had the legal ability to prevent the discharge.

If additional information is submitted indicating that other parties caused or permitted any waste to be discharged on the site where it entered or could have entered waters of the state, the Board will consider adding those parties' names to this order.

4. **Regulatory Status**: These sites are currently not subject to Board orders.

5. **Site Hydrogeology**: The hydrogeology of the site vicinity is not fully characterized. The sites vicinity is flat. The stratigraphy underneath the site is composed of silty sand to poorly graded sand. Two water-bearing zones have been identified and investigated beneath the sites. The shallow zone is encountered between depth of 4 and 10 feet below ground surface (bgs). The deep zone is encountered between depth of approximately 19 and 24 feet bgs and is composed of clayey sand and poorly graded sand. Further groundwater investigation is needed to fully determine the stratigraphy underneath the sites and direction of groundwater flow.

6. **Remedial Investigation**: Both Tiegel and Delta Star conducted preliminary remedial investigation at their respective sites.

   a. **495 Bragato Road:** Tiegel initiated environmental site assessment at this property in 1993. During the first phase of characterization, Tiegel collected soil and grab groundwater samples from about 17 borings. Total recoverable petroleum hydrocarbons (TRPH) up to 140 mg/kg were detected in two soil borings. Grab shallow groundwater samples near the southern property boundary detected up to 3,800 ppb of benzene, 52,000 ppb of chlorobenzene, 14,400 ppb of dichlorobenzenes, 6,100 ppb of ethylbenzene, and 25,000 ppb of xylenes.

   Following the initial investigation, Tiegel conducted five additional phases of soil and groundwater investigations, including soil gas survey, to assess the source areas and determine the lateral and vertical extent of contaminants. The additional work was conducted in 1995, 1996, 1997 and 1998, and included sampling of soil and/or groundwater from 53 additional borings. The groundwater samples at and near the southern property boundary repeatedly showed elevated concentrations of benzene, chlorobenzene, dichlorobenzenes, ethylbenzene, and xylenes.

   Soil samples along the fence line shared with Delta Star detected PCBs (up to 3,300 mg/kg) at a depth of 3 feet bgs. PCBs (up to 1,300 ppb), weathered TPH-g (up to 140,000 ppb), TPH-d (up to 71,000 ppb) and hydraulic fluids (up to 39,000 ppb) were also detected in shallow groundwater along the fence line shared by Delta Star. The TPH data may be exaggerated due to the presence of chlorobenzene, dichlorobenzene and trichlorobenzenes TCBs, and PCBs in groundwater.

b. **270 Industrial Road:** In 1998, Delta Star and Tiegel conducted soil and groundwater investigation at and near the property boundary. PCB-Aroclor was detected at up to 18,000 mg/kg in soil samples on the Delta Star side of the fence, the highest level on either property. Similarly, total TCBs were detected at concentration up to 1,720 mg/kg at about 2 feet bgs. Chlorobenzene (CB) and dichlorobenzenes (DCBs) were also detected at concentrations up to 480 mg/kg and 689 mg/kg at about 3 feet bgs, respectively. The highest concentrations of CB, DCBs and TCBs were found in soil samples where high PCB Aroclor 1260 was detected on the Delta Star site. TCB was the solvent carrier for Aroclor 1260 in the askarel transformer oil used by Porter. Elevated CB, DCB, and benzene were also detected along the property boundary, where high TCB and Aroclor 1260 concentrations were detected.

On April 29 and 30, 1999, Delta Star installed five monitoring wells, three wells at 270 Industrial Road and two at 495 Bragato Road. TCBs, DCBs, trimethylbenzene, xylenes, motor oil, and PCB (Aroclor 1254) were detected in unsaturated soil boring samples collected from monitoring well MW-4, a well located about 70 feet inside the Delta Star property and cross-gradient of the hot-spot area along the property boundary. TCB concentrations were up to 9 mg/kg and 42 mg/kg in soil at about 1 foot and 4 feet bgs, respectively. Aroclor 1254 concentrations were also up to 15 mg/kg and 57 mg/kg in unsaturated soil at about 1 foot and 4 feet bgs, respectively. Elevated concentrations of CB, DCB, and benzene were also detected along the property boundary. CB (up to 67,500 ppb), DCBs (up to 3,700 ppb), benzene (up to 3,760 ppb), ethylbenzene (up to 2,750 ppb) trimethylbenzene (up to 4,990 ppb), and xylenes (up to 2,790 ppb) were detected in water samples collected from monitoring well MW-1, a well along the property boundary on the Tiegel side of the fence. CB (up to 20,000 ppb), DCBs (up to 14,600 ppb), and benzene (up to 641 ppb) were also detected in water samples collected from monitoring well MW-2, a well along the property boundary on the Delta Star side of the fence. These recent groundwater monitoring data are consistent with the previous grab groundwater data.

Based on the chemical usage history and soil investigation results, the 270 Industrial Road is the most likely source of PCB and TCBs releases along the common property boundary. The 495 Bragato Road is the most likely source of TPH-g and TPH-d releases. BTEX are most likely released at both properties. The presence of high concentrations of CB and DCB in groundwater is due to: (i) direct release of these compounds near the common property boundary by Porter or Tiegel, (ii) degradation of TCBs released by Porter, or (iii) a combination of both (i) and (ii). Both dischargers deny using CB in their manufacturing process. Tiegel reported that it used Safety-Kleen 105 solvent, mineral spirits that contain insignificant levels of 1,4-DCB. This solvent is unlikely to be the source for the extremely high CB and DCB concentrations detected in groundwater along the common property boundary. TCB readily degrades to DCB and then to CB under anaerobic conditions in research studies.

c. **Additional Investigation Needed:** The vertical and lateral extent of the contaminants at both sites is not delineated, especially in groundwater. Further site characterization is required to define the extent of the groundwater plume. Further investigation is also required to determine if TCB has been degraded to DCB and CB at the two sites.

The source of contamination is along the property boundary. Due to the proximity of the two sites, the groundwater plume is commingled. Therefore, Delta Star and Tiegel will save significant time and resources if they jointly investigate and remediate the groundwater plume.

7. **Interim Remedial Measures**: So far, no interim remedial measures have been implemented to remediate the contamination. Source control measures are necessary while further investigation for full site characterization is underway to minimize exposure to PCBs in shallow soil. Interim remedial measures need to be implemented at these sites to reduce the threat to water quality, public health, and the environment posed by the discharge of waste and to provide a technical basis for selecting and designing final remedial measures.

8. **Adjacent Sites:** At this point, there is no evidence of VOC releases from adjacent sites.

9. **Basin Plan**: The Board adopted a revised Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan) on June 21, 1995. This updated and consolidated plan represents the Board's master water quality control planning document. The revised Basin Plan was approved by the State Water Resources Control Board and the Office of Administrative Law on July 20, 1995, and November 13, 1995, respectively. A summary of regulatory provisions is contained in 23 CCR 3912. The Basin Plan defines beneficial uses and water quality objectives for waters of the State, including surface waters and groundwaters.

The potential beneficial uses of groundwater underlying and adjacent to the site include:

a. Municipal and domestic water supply
b. Industrial process water supply
c. Industrial service water supply
d. Agricultural water supply

At present, there is no known use of groundwater underlying the site for the above purposes.

10. **Other Board Policies**: Board Resolution No. 88-160 allows discharges of extracted, treated groundwater from site cleanups to surface waters only if it has been demonstrated that neither reclamation nor discharge to the sanitary sewer is technically and economically feasible.

Board Resolution No. 89-39, "Sources of Drinking Water," defines potential sources of drinking water to include all groundwater in the region, with limited exceptions for areas of high TDS, low yield, or naturally high contaminant levels.

11. **State Water Board Policies**: State Water Board Resolution No. 68-16, "Statement of Policy with Respect to Maintaining High Quality of Waters in California," applies to this discharge and requires attainment of background levels of water quality, or the highest level of water quality which is reasonable if background levels of water quality cannot be restored. Cleanup levels other than background must be consistent with the maximum benefit to the people of the State, not unreasonably affect present and anticipated beneficial uses of such water, and not result in exceedance of applicable water quality objectives. Given the Board's past experience with groundwater pollution cases of this type, it is unlikely that background levels of water quality can be restored. This initial conclusion will be verified when a cleanup plan is prepared. This order and its requirements are consistent with Resolution No. 68-16.

    State Water Board Resolution No. 92-49, "Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304," applies to this discharge. This order and its requirements are consistent with the provisions of Resolution No. 92-49, as amended.

12. **Preliminary Cleanup Goals**: The dischargers will need to make assumptions about future cleanup standards for soil and groundwater, in order to determine the necessary extent of remedial investigation, interim remedial actions, and the draft cleanup plan. Pending the establishment of site-specific cleanup standards, the following preliminary cleanup goals should be used for these purposes:

    a. Groundwater: Applicable water quality objectives (e.g. maximum contaminant levels, or MCLs) or, in the absence of a chemical-specific objective, risk-based levels (e.g. drinking water equivalent levels).

    b. Soil: 1 mg/kg total volatile organic compounds (VOCs), 10 mg/kg total semi-volatile organic compounds (SVOCs), and background concentrations of metals.

13. **Basis for 13304 Order**: The dischargers have caused or permitted waste to be discharged or deposited where it is or probably will be discharged into waters of the State and creates or threatens to create a condition of pollution or nuisance.

14. **Cost Recovery**: Pursuant to California Water Code Section 13304, the dischargers are hereby notified that the Board is entitled to, and may seek reimbursement for, all reasonable costs actually incurred by the Board to investigate unauthorized discharges of

waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this order.

15. **CEQA**: This action is an order to enforce the laws and regulations administered by the Board. As such, this action is categorically exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Section 15321 of the Resources Agency Guidelines.

16. **Notification**: The Board has notified the dischargers and all interested agencies and persons of its intent under California Water Code Section 13304 to prescribe site cleanup requirements for the discharge, and has provided them with an opportunity to submit their written comments.

17. **Public Hearing**: The Board, at a public meeting, heard and considered all comments pertaining to this discharge.

IT IS HEREBY ORDERED, pursuant to Section 13304 of the California Water Code, that the dischargers (or their agents, successors, or assigns) shall cleanup and abate the effects described in the above findings as follows:

A. **PROHIBITIONS**

1. The discharge of wastes or hazardous substances in a manner which will degrade water quality or adversely affect beneficial uses of waters of the State is prohibited.

2. Further significant migration of wastes or hazardous substances through subsurface transport to waters of the State is prohibited.

3. Activities associated with the subsurface investigation and cleanup which will cause significant adverse migration of wastes or hazardous substances are prohibited.

B. **TASKS**

1. **WORKPLAN FOR REMEDIAL INVESTIGATION AND TCB DEGRADATION STUDY**

COMPLIANCE DATE: October 31, 1999

Submit a workplan acceptable to the Executive Officer (a) to define the vertical and lateral extent of pollutants (i) in soil at both sites and along the common property boundary and (ii) in groundwater, and (b) to study degradation of TCB and its breakdown products at both sites. The workplan should specify investigation methods, parameters to be analyzed and a proposed time schedule. The dischargers should coordinate their works to effectively investigate the hot-spot area along the property boundary.

2. **COMPLETION OF REMEDIAL INVESTIGATION**

COMPLIANCE DATE: March 31, 2000

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 1. workplan. The technical report should define the vertical and lateral extent of pollution down to concentrations at or below typical cleanup standards for soil and groundwater. The technical report should also identify the parameters analyzed to determine if TCB has been degraded to DCB and CB at the two sites. The Board may amend this order based on the study results

3. **INTERIM REMEDIAL ACTION WORKPLAN FOR SOIL**

COMPLIANCE DATE: June 30, 2000

Submit a workplan acceptable to the Executive Officer to evaluate interim remedial action alternatives for the pollutants impacted soil at both sites and along the common property boundary and to recommend one or more alternatives for implementation. The workplan should specify a proposed time schedule.

4. **COMPLETION OF INTERIM REMEDIAL ACTIONS FOR SOIL**

COMPLIANCE DATE: December 31, 2000

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 3.. workplan. For ongoing actions, such as soil vapor extraction, the report should document start-up as opposed to completion.

5. **INTERIM REMEDIAL ACTION WORKPLAN FOR GROUNDWATER**

COMPLIANCE DATE: June 30, 2000

Submit a workplan acceptable to the Executive Officer to evaluate interim remedial action alternatives for groundwater pollution at both sites and recommend one or more alternatives for implementation. The workplan should specify a proposed time schedule. If groundwater extraction is selected as an interim remedial action, then one task may be the completion of an NPDES permit application for discharge of extracted, treated groundwater to waters of the State. The application must demonstrate that neither reclamation nor discharge to the sanitary sewer is technically or economically feasible.

6. **COMPLETION OF INTERIM REMEDIAL ACTIONS FOR GROUNDWATER**

COMPLIANCE DATE: December 31, 2000

Submit a technical report acceptable to the Executive Officer documenting completion of necessary tasks identified in the Task 5.. workplan. For ongoing actions, such as groundwater extraction, the report should document start-up as opposed to completion.

7. **PROPOSED FINAL REMEDIAL ACTIONS AND CLEANUP STANDARDS**

COMPLIANCE DATE: December 31, 2001

Submit a technical report acceptable to the Executive Officer containing:

a. Results of the remedial investigation
b. Evaluation of the installed interim remedial actions
c. Feasibility study evaluating alternative final remedial actions
d. Risk assessment for current and post-cleanup exposures
e. Recommended final remedial actions and cleanup standards
f. Implementation tasks and time schedule

Item c should include projections of cost, effectiveness, benefits, and impact on public health, welfare, and the environment of each alternative action.

Items a through c should be consistent with the guidance provided by Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Part 300), CERCLA guidance documents with respect to remedial investigations and feasibility studies, and State Board Resolution No. 92-49 as amended ("Policies and Procedures for Investigation and Cleanup and Abatement of Discharges Under Water Code Section 13304").

Item e should consider the preliminary cleanup goals for soil and groundwater identified in finding 12 and should address the attainability of background levels of water quality (see finding 11).

8. **Delayed Compliance**: If the dischargers are delayed, interrupted, or prevented from meeting one or more of the completion dates specified for the above tasks, the dischargers shall promptly notify the Executive Officer and the Board may consider revision to this Order.

C. PROVISIONS

1. **No Nuisance**: The storage, handling, treatment, or disposal of polluted soil or groundwater shall not create a nuisance as defined in California Water Code Section 13050(m).

2. **Good Operation and Maintenance (O&M)**: The dischargers shall maintain in good working order and operate as efficiently as possible any facility or control system installed to achieve compliance with the requirements of this Order.

3. **Cost Recovery**: The dischargers shall be liable, pursuant to California Water Code Section 13304, to the Board for all reasonable costs actually incurred by the Board to investigate unauthorized discharges of waste and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial action, required by this Order. If the sites addressed by this Order are enrolled in a State Board-managed reimbursement program, reimbursement shall be made pursuant to this Order and according to the procedures established in that program. Any disputes raised by the dischargers over reimbursement amounts or methods used in that program shall be consistent with the dispute resolution procedures for that program.

4. **Access to Site and Records**: In accordance with California Water Code Section 13267(c), the dischargers shall permit the Board or its authorized representative:

   a. Entry upon premises in which any pollution source exists, or may potentially exist, or in which any required records are kept, which are relevant to this Order.

   b. Access to copy any records required to be kept under the requirements of this Order.

c. Inspection of any monitoring or remediation facilities installed in response to this Order.

d. Sampling of any groundwater or soil which is accessible, or may become accessible, as part of any investigation or remedial action program undertaken by the dischargers.

5. **Self-Monitoring Program**: The dischargers shall comply with the Self-Monitoring Program as attached to this Order and as may be amended by the Executive Officer.

6. **Contractor / Consultant Qualifications**: All technical documents shall be signed by and stamped with the seal of a California registered geologist, a California certified engineering geologist, or a California registered civil engineer.

7. **Lab Qualifications**: All samples shall be analyzed by State-certified laboratories or laboratories accepted by the Board using approved EPA methods for the type of analysis to be performed. All laboratories shall maintain quality assurance/quality control (QA/QC) records for Board review. This provision does not apply to analyses that can only reasonably be performed on-site (e.g. temperature).

8. **Document Distribution**: Copies of all correspondence, technical reports, and other documents pertaining to compliance with this Order shall be provided to the following agencies:

   a. City of San Carlos
   b. County of San Mateo Department of Environmental Health
   c. Cal/EPA - Department of Toxic Substances Control

   The Executive Officer may modify this distribution list as needed.

9. **Reporting of Changed Owner or Operator**: The dischargers shall file a technical report on any changes in site occupancy or ownership associated with the property described in this Order.

10. **Reporting of Hazardous Substance Release**: If any hazardous substance is discharged in or on any waters of the State, or discharged or deposited where it is, or probably will be, discharged in or on any waters of the State, the dischargers shall report such discharge to the Regional Board by calling (510) 622-2300 during regular office hours (Monday through Friday, 8:00 to 5:00).

A written report shall be filed with the Board within five working days. The report shall describe: the nature of the hazardous substance, estimated quantity involved, duration of incident, cause of release, estimated size of affected area, nature of effect, corrective actions taken or planned, schedule of corrective actions planned, and persons/agencies notified.

This reporting is in addition to reporting to the Office of Emergency Services required pursuant to the Health and Safety Code.

11. **Periodic SCR Review**: The Board will review this Order periodically and may revise it when necessary. The dischargers may request revisions and upon review the Executive Officer may recommend that the Board revise these requirements.

I, Loretta K. Barsamian, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on July 21, 1999.

Loretta K. Barsamian
Executive Officer

FAILURE TO COMPLY WITH THE REQUIREMENTS OF THIS ORDER MAY SUBJECT YOU TO ENFORCEMENT ACTION, INCLUDING BUT NOT LIMITED TO: IMPOSITION OF ADMINISTRATIVE CIVIL LIABILITY UNDER WATER CODE SECTIONS 13268 OR 13350, OR REFERRAL TO THE ATTORNEY GENERAL FOR INJUNCTIVE RELIEF OR CIVIL OR CRIMINAL LIABILITY

Attachments: Site Map
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM FOR:

H.K. PORTER COMPANY, INC. AND DELTA STAR, INC.
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SAN MATEO COUNTY

TIEGEL MANUFACTURING COMPANY
495 BRAGATO ROAD
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1. **Authority and Purpose**: The Board requests the technical reports required in this Self-Monitoring Program pursuant to Water Code Sections 13267 and 13304. This Self-Monitoring Program is intended to document compliance with Board Order No. 99-062 (site cleanup requirements).

2. **Monitoring**: The dischargers shall measure groundwater elevations quarterly in all monitoring wells, and shall collect and analyze representative samples of groundwater according to the following schedule:

Well #	Sampling Frequency	Analyses	Well #	Sampling Frequency	Analyses
MW-1	Q	8010/8020, 8015 & 8080	MW-4	Q	8010/8020, 8015 & 8080
MW-2	Q	8010/8020, 8015 & 8080	MW-5	Q	8010/8020, 8015 & 8080
MW-3	Q	8010/8020, 8015 & 8080			

Key: Q = Quarterly
8010/8020 = EPA Method 8010/8020 or equivalent for chlorobenzene, dichlorobenzene and trichlorobenzene isomers, and BTEX
8015 = Modified EPA Method 8015 or equivalent
8080 = EPA Method 8080 or equivalent for PCBs

8010/8020 = Use EPA Method 8260 or equivalent in lieu of 8010/8020 for fourth quarter

The dischargers shall sample any new monitoring or extraction wells quarterly and analyze groundwater samples for the same constituents as shown in the above table. The dischargers may propose changes in the above table; any proposed changes are subject to Executive Officer approval.

3. **Quarterly Monitoring Reports**: The dischargers shall submit quarterly monitoring reports to the Board no later than 30 days following the end of the quarter (e.g. report for first quarter of the year due April 30). The first quarterly monitoring report shall be due on October 31, 1999. The reports shall include:

   a. Transmittal Letter: The transmittal letter shall discuss any violations during the reporting period and actions taken or planned to correct the problem. The letter shall be signed by the dischargers' principal executive officers or their duly authorized representatives, and shall include a statement by the officials, under penalty of perjury, that the report is true and correct to the best of the officials' knowledge.

   b. Groundwater Elevations: Groundwater elevation data shall be presented in tabular form, and a groundwater elevation map should be prepared for each monitored water-bearing zone. Historical groundwater elevations shall be included in the fourth quarterly report each year.

   c. Groundwater Analyses: Groundwater sampling data shall be presented in tabular form, and an isoconcentration map should be prepared for one or more key contaminants for each monitored water-bearing zone, as appropriate. The report shall indicate the analytical method used, detection limits obtained for each reported constituent, and a summary of QA/QC data. Historical groundwater sampling results shall be included in the fourth quarterly report each year. The report shall describe any significant increases in contaminant concentrations since the last report, and any measures proposed to address the increases. Supporting data, such as lab data sheets, need not be included (however, see record keeping - below).

   d. Groundwater Extraction: If applicable, the report shall include groundwater extraction results in tabular form, for each extraction well and for the site as a whole, expressed in gallons per minute and total groundwater volume for the quarter. The report shall also include contaminant removal results, from groundwater extraction wells and from other remediation systems (e.g. soil vapor extraction), expressed in units of chemical mass per day and mass for the quarter.